## **CLAIMS**

- 1. A target protein of an antidiabetic, represented by the following (a) or (b):
  - (a) a protein consisting of the amino acid sequence represented by SEQ ID NO: 2; or
- (b) a protein consisting of an amino acid sequence derived from the amino acid sequence represented by SEQ ID NO: 2 with the deletion, substitution, addition, or insertion of one or plural amino acids and interacting with the antidiabetic.
- 2. The target protein according to claim 1, wherein the antidiabetic is a thiazolidine derivative.
- 3. The target protein according to claim 2, wherein the thiazolidine derivative is pioglitazone.
- 4. The target protein according to claim 1, wherein the target protein is a  $\gamma$ -tubulin ring complex protein.
- 5. A gene encoding a target protein of an antidiabetic, represented by the following (a) or (b):
  - (a) a protein consisting of the amino acid sequence represented by SEQ ID NO: 2; or
- (b) a protein consisting of an amino acid sequence derived from the amino acid sequence represented by SEQ ID NO: 2 with the deletion, substitution, addition, or insertion of one or plural amino acids and interacting with the antidiabetic.
- 6. The gene encoding a target protein according to claim 5, wherein the antidiabetic is a thiazolidine derivative.
- 7. The gene encoding a target protein according to claim 6, wherein the thiazolidine derivative is pioglitazone.

- 8. The gene encoding a target protein according to claim 5, wherein the target protein is a γ-tubulin ring complex protein.
- 9. A screening method for an antidiabetic, comprising the steps of:
  bringing a candidate substance to be screened into contact with a protein represented by
  the following (a) or (b):
  - (a) a protein consisting of the amino acid sequence represented by SEQ ID NO: 2; or
- (b) a protein consisting of an amino acid sequence derived from the amino acid sequence represented by SEQ ID NO: 2 with the deletion, substitution, addition, or insertion of one or plural amino acids and interacting with the antidiabetic; and

detecting the interaction between the candidate substance and the protein.

- 10. The screening method for an antidiabetic according to claim 9, wherein the antidiabetic is a thiazolidine derivative.
- 11. The screening method for an antidiabetic according to claim 10, wherein the thiazolidine derivative is pioglitazone.
- 12. The screening method for an antidiabetic according to claim 9, wherein the target protein is a  $\gamma$ -tubulin ring complex protein.
- 13. An antidiabetic screened by a screening method according to any one of claims 9 to 12 and mainly composed of a substance that interacts with the protein.
- 14. A thiazolidine derivative represented by the general formula (I):

## [Chemical Formula 1]

$$L_{2} \xrightarrow{L_{1}} O \underset{m}{\bigvee} O \underset{N}{\bigvee} NH \qquad (I)$$

(in the formula (I),  $R_1$  is hydrogen, a  $C_{1-10}$  alkyl group, a  $C_{3-7}$  cycloalkyl group, a  $C_{7-11}$  phenylalkyl group, a phenyl group, or a five- or six-membered heterocyclic ring comprising 1 or 2 heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur;  $L_1$  and  $L_2$  are identical or different and are each independently hydrogen or a  $C_{1-3}$  alkyl group or get together to form a  $C_{2-6}$  cycloalkyl group; and m represents any integer from 1 to 5).

- 15. The thiazolidine derivative according to claim 14, wherein in the formula (I),  $L_1$  and  $L_2$  get together to form a  $C_{2-6}$  cycloalkyl group.
- 16. The thiazolidine derivative according to claim 14, wherein in the formula (I),  $R_1$  is hydrogen, and  $L_1$  and  $L_2$  get together to form a  $C_{2-6}$  cycloalkyl group.
- 17. The thiazolidine derivative according to claim 14, wherein in the formula (I),  $R_1$  is a  $C_{1-10}$  alkyl group, and  $L_1$  and  $L_2$  get together to form a  $C_{2-6}$  cycloalkyl group.
- 18. The thiazolidine derivative according to claim 14, wherein the thiazolidine derivative is 5-{4-[2-(1-methyl-cyclohexyloxy)-ethoxy]-benzyl}-thiazolidine-2,4-dione.
- 19. A pharmacologically acceptable salt of a thiazolidine derivative according to any one of claims 14 to 18.
- 20. A pharmaceutical composition comprising a thiazolidine derivative according to any one of claims 14 to 18 and/or a pharmacologically acceptable salt thereof as effective ingredients.

- 21. The pharmaceutical composition according to claim 20, wherein the pharmaceutical composition is an antidiabetic.
- 22. A process for manufacturing a thiazolidine derivative by subjecting, to condensation reaction, a compound represented by the general formula (II):

[Chemical Formula 2]

$$L_2 \xrightarrow{L_1} O \swarrow_{\mathbf{m}} \mathbf{x} \qquad (II)$$

(in the formula (II), R<sub>1</sub> is hydrogen, a C<sub>1-10</sub> alkyl group, a C<sub>3-7</sub> cycloalkyl group, a C<sub>7-11</sub> phenylalkyl group, a phenyl group, or a five- or six-membered heterocyclic ring comprising 1 or 2 heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur; L<sub>1</sub> and L<sub>2</sub> are identical or different and are each independently hydrogen or a C<sub>1-3</sub> alkyl group or get together to form a C<sub>2-6</sub> cycloalkyl group; m represents any integer from 1 to 5; and X is one selected from the group consisting of MeSO<sub>2</sub>, p-toluenesulfonyl, iodine, bromine, chlorine, and a hydroxy group) and

a compound represented by the general formula (III):

[Chemical Formula 3]